

U.S. Application No.: 09/915,160

Attorney Docket No.: 09792909.5171

IN THE CLAIMS:

1. (Canceled)

2. (Previously Presented) The semiconductor apparatus as set forth in claim 1, wherein the surfaces of the metal bumps projecting out from the resin film are cleaned of components causing a rise of a connection resistance and a drop in a joint strength at least at connection interfaces.

3-4. (Canceled)

5. (Currently Amended) The semiconductor apparatus as set forth in claim + 25, wherein said solder bumps are comprised of high melting point solder and said solder layer is comprised of eutectic solder.

6. (Currently Amended) The semiconductor apparatus as set forth in claim 25, wherein said solder bumps are comprised of high metal point solder and said solder layers are comprised of a eutectic solder.

7-24. (Canceled)

25. (Currently Amended) A semiconductor apparatus comprising:
a semiconductor chip having a circuit pattern disposed thereon;
a plurality of solder bumps formed on said semiconductor chip and connecting to said circuit pattern, said solder bumps forming spaces therebetween;
a resin film disposed on said semiconductor chip and said solder bumps, said resin film being disposed in the spaces between solder bumps such that upper surfaces of said solder bumps protrude from said resin layer;

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wherein said upper surfaces of said solder bumps are cleaned of impurities;

a eutectic solder layer disposed on said cleaned upper surfaces of said solder bumps;

a mounting board;

a plurality of lands formed on said mounting board and aligned opposite said solder bumps; and

a precoated solder layer disposed on said lands;

wherein said eutectic solder layer of said solder bumps and said precoated solder layer join said upper surfaces of said solder bumps to said lands of said mounting board such that a stacked structure is obtained;

wherein a gap is formed between said resin layer and said mounting board of said stacked structure.